| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| | | | | | |

Jeffrey B. Woody
REGISTERED CIVIL ENGINEER

July 1, 2002
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffrey B. Woody — No. C41260 — Exp. 3-31-03 — CIVIL — STATE OF CALIFORNIA

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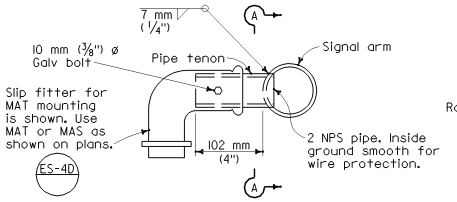
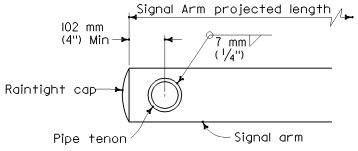
Caltrans now has a web site! To get to the web site, go to: http://www.dot.ca.gov

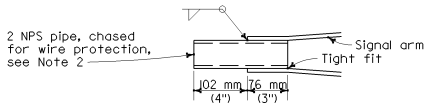



DETAIL S-SIDE TENON

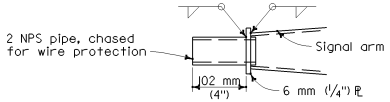



SECTION A-A

## PIPE TENONS




DETAIL TS-TIP TENON




DETAIL TL-TIP TENON

This detail supersedes Detail S when so designated

## IDENTIFICATION NUMBER

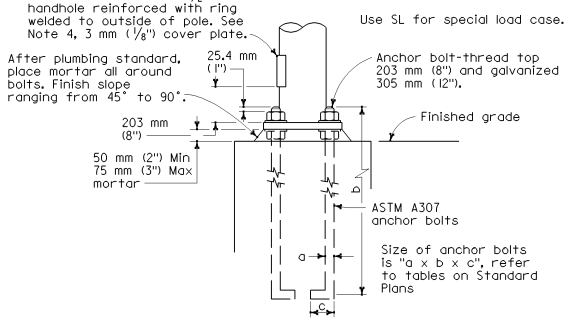
Attach a stamped metal tag with each pole's indentification number to shaft above handhole 7 mm (1/4") high number minimum. A similar tag shall be attached to the top of the signal mast arm near the pole plate

Sample Identification Number:

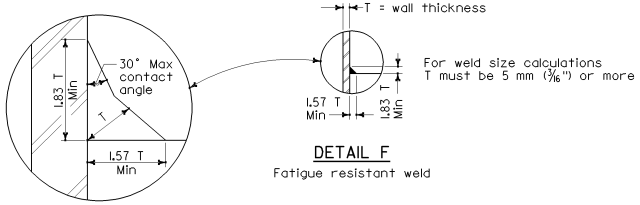
19A - 3 - 129 km/h (80 mph) - 9.1 m (30') - 99 - F

- 19A: Type
- 3: Load Case
- 129 km/h (80 mph): Design Wind Velocity
- 9.1 m (30'): Signal Arm Length, Maximum
- 99: Standard Plans Year
- F: Only for Poles with fatigue resistant welds

Use SL for special load case.

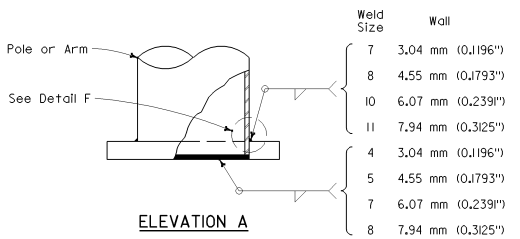



## HANDHOLE AND ANCHORAGE DETAILS

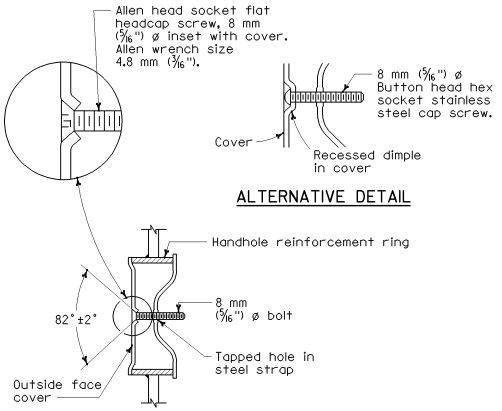



DETAIL F

Fatigue resistant weld




ELEVATION A




ALTERNATIVE DETAIL

TAMPER RESISTANT HANDHOLE COVER

## GENERAL NOTES:

SPECIFICATIONS

Design: AASHTO specifications for the design and construction of structural supports for highway signs, luminaires and traffic signals, dated 1994.

LOADING

Wind Loadings: 129 km/h (80 mph) AASHTO.

UNIT STRESSES

Structural Steel: fy = 331 MPa (48,000 psi) tapered steel tube (pole).
fy = 248 MPa (36,000 psi) unless otherwise noted.

Construction: Standard Specifications and the Special Provisions.

## NOTES

1. 4-ASTM A-307 anchor bolts are required for each pole. Provide a hex nut, leveling nut and 2 washers for each bolt.
2. Luminaire arms shall be round, tapered steel tubes, taper of 11.45 mm/m to 11.66 mm/m (0.1375 to 0.1400 inch per foot) with an end section 60 mm (2⅜") OD for mounting hardware. Extensions of 2 NPS pipe and 178 mm (7") long may be used at the option of the manufacturer. When low pressure sodium luminaires are required, the extension shall be 381 mm (15").
3. Signal arms shall be round, tapered steel tubes, maximum taper 11.66 mm/m (0.140 inch per foot).
4. Handhole reinforcement ring shall be 6 mm x 51 mm (1/4" x 2") for 3.04 mm to 6.07 mm (0.1196" to 0.2391") poles, 10 mm x 51 mm (3/8" x 2") for 7.94 mm (0.3125") poles.
5. Handholes for lighting standards shall be located on the downstream side of the pole unless otherwise noted on the plans.
6. Detail F, fatigue resistant weld, is required at signal arm plate an pole base plate.
7. In lieu of the torque requirements for HS bolts, cap screws shall be tightened by the turn-of-nut method 1/3 turn from a snug tight condition. No washer will be required.
8. During pole erection, the post shall be raked as necessary with the use of leveling nuts to provide a plumb pole axis.
9. When Project Plans show a lesser number of signs and signals, the Project Plans shall prevail.
10. Outside diameter, wall thickness, and corresponding section properties at the base of traffic signal poles and arms as shown in the Standard Plans are minimum. Unless otherwise specified, alternative sections require approval by the Engineer.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# SIGNAL AND LIGHTING STANDARDS DETAILS NO. 1

These "Standard Plans for Construction of Local Streets and Roads" contain units in two systems of measurement: International System of Units (SI or "metric") and United States Standard Measures shown in the parentheses (). The measurements expressed in the two systems are not necessarily equal or interchangeable. See the "Foreword" at the beginning of this publication.

NO SCALE

**ES-7M**